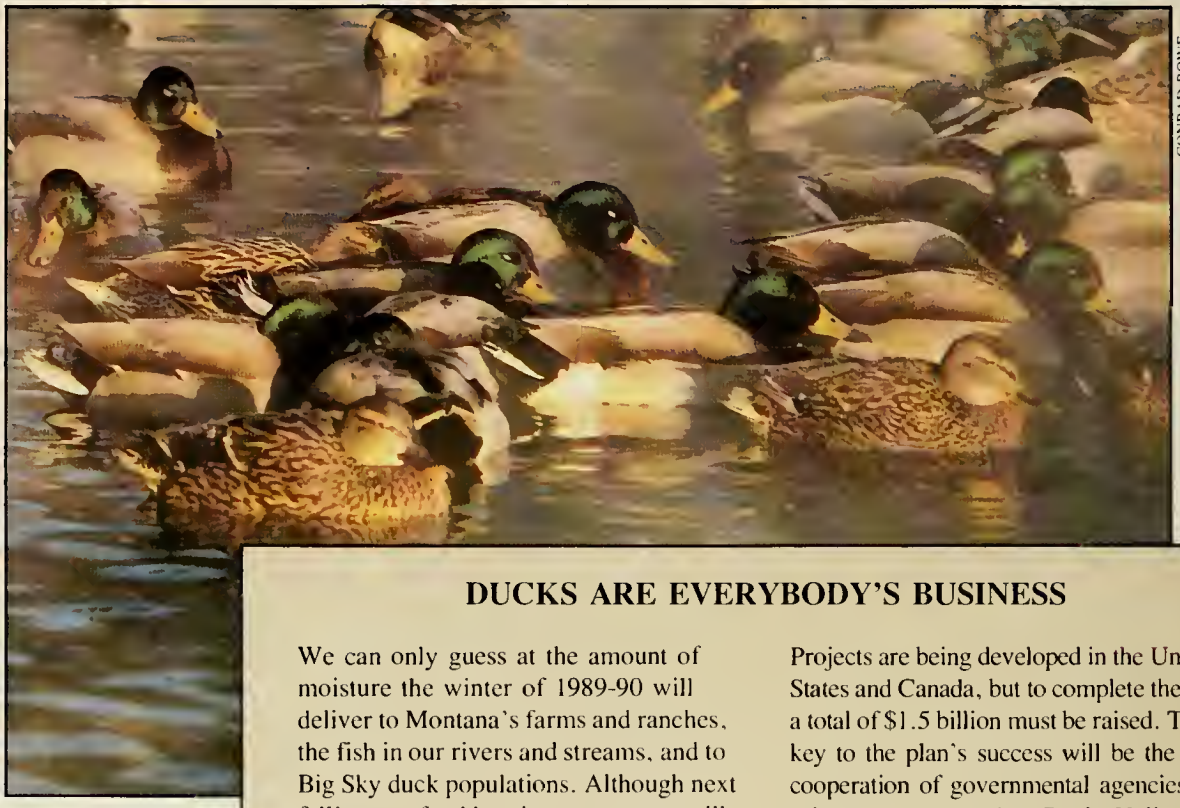
March/April 1990 $2.00

MONTANA OUTDOORS

MONTANA OWLS
I.D. GUIDE

OUR POINT OF VIEW



CONRAD ROWE

DUCKS ARE EVERYBODY'S BUSINESS

We can only guess at the amount of moisture the winter of 1989-90 will deliver to Montana's farms and ranches, the fish in our rivers and streams, and to Big Sky duck populations. Although next fall's waterfowl hunting seasons are still months away, the number of ducks and other waterfowl species that will be available to hunters throughout much of the western and central United States is being determined now on the prairies of Montana, the Dakotas, and the Canadian provinces.

It's no secret to those who take joy in Montana's marvelous wildlife resources that the drought years of the late 1980s, combined with continuing loss of vital nesting habitat, took a measurable toll on duck populations. Although Montana may have been one of a few bright spots last year to those who chart duck production levels, the Great Duck Depression of the 1980s is still with us.

The North American Waterfowl Management Plan (NAWMP), a continental effort calling for protection of approximately 6 million acres of wetlands and upland nesting habitat to sustain a fall flight of at least 100 million ducks, is now up and running. Projects are being developed in the United States and Canada, but to complete the task a total of $1.5 billion must be raised. The key to the plan's success will be the cooperation of governmental agencies and private partners, such as Ducks Unlimited.

Montanans can play a vital role in seeing that the goals of this important plan are realized by purchasing Montana waterfowl stamps. Even if you don't plan to hunt waterfowl this fall, please support conservation of our valuable waterfowl resources by purchasing a stamp. Better yet, buy stamps for yourself and a friend. The small price you pay will be channeled into habitat improvement projects for ducks and other waterfowl right here in Montana.

Waterfowl are a beautiful and integral part of Montana's splendid wildlife heritage. The well-being of ducks is everybody's business.

K.L. Cool
Director
Montana Department of Fish, Wildlife & Parks

Turn to page 5 for an article on hunting tests for retrievers.

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Dave Books/Editur
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Donita Sexton/Art Director

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COVERS

The Cover—Our wrap-around cover features the work of Victor artist **Joe Thornbrugh**. His paintings also illustrate the owl identification guide, beginning on page 11, and his entry was the winner in the 1990 waterfowl stamp contest (see page 2). This issue's cover, "Eyes of the Forest—Great Horned Owl," is available as a limited edition print, signed and numbered by the artist. Cost is $45, and the print is available from Red Crow Studio and Gallery, 2033 Red Crow Road; Victor, MT 59875.

THORNBRUGH WINS IT AGAIN

by William Phippen

VICTOR ARTIST JOE THORNBRUGH won the 1990 Montana waterfowl stamp competition with "Through the Cattails," a rendition of a cinnamon teal drake and a blue-winged teal drake. Thornbrugh also won Montana's "First of State" waterfowl stamp contest in 1986.

Thornbrugh's 1990 winner was selected from 31 paintings submitted by Montana artists. Other finalists included: **Robert Kercher**, Great Falls, second; **Roger Crowys**, Bozeman, third; and **W.J. Martin**, Columbus, fourth. Paintings by **Craig Phillips**, Thompson Falls, and **Dan Bevins**, Great Falls, received honorable mention. The finalists' paintings will be exhibited throughout the state.

Thornbrugh's interest in wildlife and art began while he was growing up in western Montana. Although he works in several mediums, he prefers acrylic because he believes it "offers the most challenges" and its vibrant colors are "most suitable for rendering the plumage of birds," his most frequent subject. He spends about half his time researching and sketching and the other half in translating that information into paintings.

Thornbrugh's works have been exhibited at the Los Angeles County Museum of Natural History, the National Wildlife Federation Headquarters in Vienna, Virginia, the Museum of Native American Cultures in Spokane, the Leigh Yawkey Woodson Art Museum in Wausau, Wisconsin, the Charles and Emma Frye Museum in Seattle, and at the 1979 and 1980 National Bird Art Exhibitions. In 1980, his painting of a ring-necked pheasant was selected for exhibit in the National

Collection of Fine Arts at the Smithsonian Institution in Washington, D.C. In this issue of *Montana Outdoors*, his paintings illustrate the "Identification of Montana's Owls" guide, beginning on page 11. He also did the paintings for the Nov./Dec. 1987 issue of *MO* that featured the identification guide for Montana's birds of prey.

"Through the Cattails" will be reproduced as the state's fifth waterfowl stamp. Hunters are required to have a Montana stamp, in addition to a federal "duck stamp," to hunt waterfowl in Montana. In 1989, about 18,000 stamps were sold to Montana waterfowl hunters and several thousand collector's stamps were sold throughout the country.

The 1985 Legislature gave the Department of Fish, Wildlife & Parks authority to produce and sell the stamp. Proceeds from sale of the stamps, art prints, and related items to hunters, collectors, and others are used to finance projects that conserve and enhance waterfowl habitat in Montana.

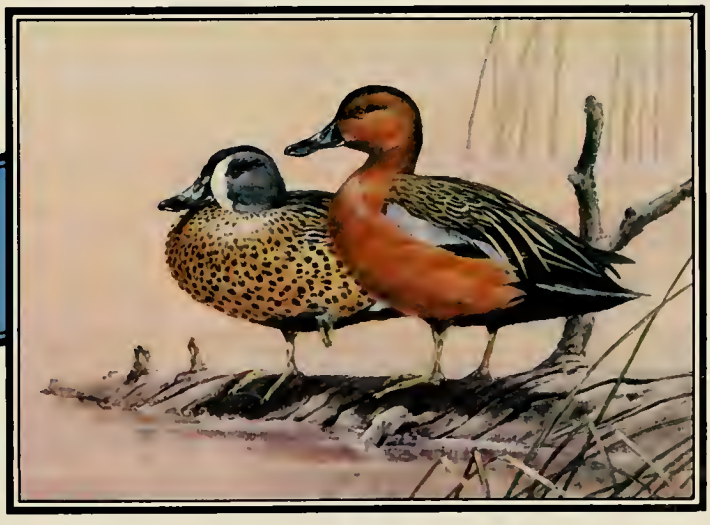
As in previous years, funds for wetland enhancement projects will come from sale of the 1990 waterfowl stamp ($5) and a series of limited edition prints that range from $140 for a signed print and stamp to $755 for the Executive Edition Print—a numbered, signed, remarqued print with a stamp and 24k gold-plate medallion embossed with the Thornbrugh painting. Prints of the 1990 waterfowl stamp can be ordered through most art galleries in Montana.

Jeff Herbert, statewide waterfowl management coordinator for FW&P in Helena, said portions of the money raised have been spent on island and pond construction, enhancement of upland bird nesting cover, nesting platforms for geese, mallard nest baskets, and wood duck nest boxes that have been placed in strategic locations throughout Montana.

One of the most important advantages of generating money for wetland enhancement projects through the state waterfowl stamp program is that it allows Montana to participate in Ducks Unlimited's MARSH program, Herbert said. MARSH—or Matching Aid to Restore State's Habitat—provides state wildlife agencies with matching funds to be used for conserving local waterfowl habitat. Besides the DU projects, other cooperative efforts use funds generated by the waterfowl stamp to improve waterfowl habitat. ■

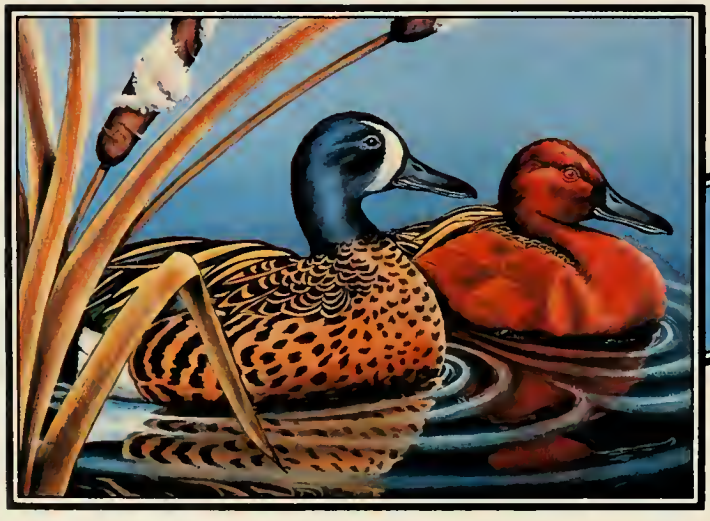
Second Place
ROBERT KERCHER,
Great Falls

Third Place
ROGER CRUWYS,
Bozeman



Fourth Place
W. J. MARTIN,
Columbus

Honorable Mention
CRAIG PHILLIPS,
Thompson Falls



Honorable Mention
DAN BEVINS,
Great Falls

Saturday Afternoon Fever

story and photos by Dave Books

WHEN I GOT MY FIRST BLACK LAB about 15 years ago, I was anxious to learn everything I could about retriever training. So I joined the local retriever

In hunting tests for retrievers, dogs are graded by the judges against written standards (left). An eager golden retriever (below) waits his turn in a duck blind.

club, where I met a lot of like-minded souls, many of whom were involved in field trialing. Eventually I ran my dog in a few Saturday-afternoon "fun" trials, and attended some AKC (American Kennel Club) licensed field trials as an observer.

The licensed trials were a real eye-opener. The feats these dogs performed, mostly under the direction of professional trainers, were mind-boggling. The dogs were the equivalent of professional athletes, well conditioned and meticulously drilled for competing in sophisticated retrieving tests. While these trials were fun to watch, a couple of things soon became apparent. For one, some of the retrieving tests bore little or no resemblance to situations that hunters typically encounter in the field. Long-time field trialers explained that the dogs and their handlers had gotten so proficient at routine retrieving tests that the judges had to concoct increasingly difficult and arbitrary standards to separate the winners from the also-rans. Field trialing, which had begun as a friendly way for hunters to get together for the purpose of improving their dogs' retrieving skills, had become an intensely competitive and specialized sport, an end unto itself. In fact, it had gotten to the point where many avid field trialers were afraid to take their dogs hunting for fear they'd develop "bad" habits!

For obvious reasons, the level of competition in these trials was such that the Saturday-afternoon trainer and his dog didn't stand much of a chance. As one well-traveled campaigner told me, "Son, if you want to get serious about field trialing, here's what you'd better do. Take out a second mortgage on your house, quit your job, buy a new truck, get the best dogs you can afford, and hit the field trial circuit for three or four years. At the end of that time, you'll still have a second mortgage on your house, and a worn-out truck to boot—but you may just have a field champion."

Since my interest in retriever training revolved more around hunting than it did second mortgages, I eventually drifted away from organized field trialing. I used what I had learned to advantage in training my dogs, but gave up on the idea of running them in any kind of formal tests. That is, until Jeff Herbert called and invited me to watch some new hunting tests for retrievers being held at the Canyon Ferry Wildlife Management Area near Townsend. Jeff is the state waterfowl coordinator for the Department of Fish, Wildlife & Parks, and an avid dog trainer and bird hunter. He explained that these tests are different from traditional field trials; called AKC-licensed hunting tests for retrievers, they simulate actual hunting conditions and are non-competitive in nature.

WHEN I ARRIVED AT CANYON FERRY the next Saturday, I was greeted by a familiar sight. Trucks and station wagons, many sporting Ducks Unlimited decals on their windows, were parked along a dike, and an assortment of Labs, goldens, and Chessies peered eagerly from their travel crates. People with dog whistles around their necks were chatting, walking their dogs, or unloading equipment. But instead of the white coats traditionally worn by dog handlers in licensed field trials, these people were wearing the muted greens and browns of waterfowl hunters. A duck boat, loaded with several sacks of decoys, sat near the water's edge.

After a few minutes I located Jeff, who was helping set up the first of the morning's tests, for which he would serve as a judge. He introduced me to some of the other folks, and through my discussions with them I began to get a picture of how the new hunting retriever tests had evolved. Over a period of years, people all across the country, mostly hunters, had begun to rebel at a system of field trials in which only a small number of people and dogs could compete. Many of them felt that the

continued on page 31

There's Something Wild on Your Tax Form

Filling out your state income tax form can be a dreaded event, but there's a bright spot on line 49: wildlife. Here is your chance to support one of Montana's greatest assets—its internationally famous wildlife heritage. Your donation to the nongame check-off supports critical research and education efforts. The nongame research shown on the accompanying map would not have been possible without donations to the check-off. These projects are only the beginning—but to do more requires continued help from taxpayers.

"Nongame" refers to an astounding 819 species of wildlife and fish. In fact, more than 83% percent of the 599 vertebrates in Montana are considered nongame (species not otherwise classified under Montana statutes as game, furbearers, or predators). Raptors, songbirds, fish, amphibians, reptiles, and even crayfish and mussels fall under the nongame classification.

What's so important about a northern flying squirrel, a painted turtle, a sturgeon chub, a bluebird, an upland sandpiper, a marmot, a bald eagle?

Conservationist John Muir explained the values almost a century ago when he wrote, "When one tugs at a single thing in nature, he finds it attached to the rest of the world."

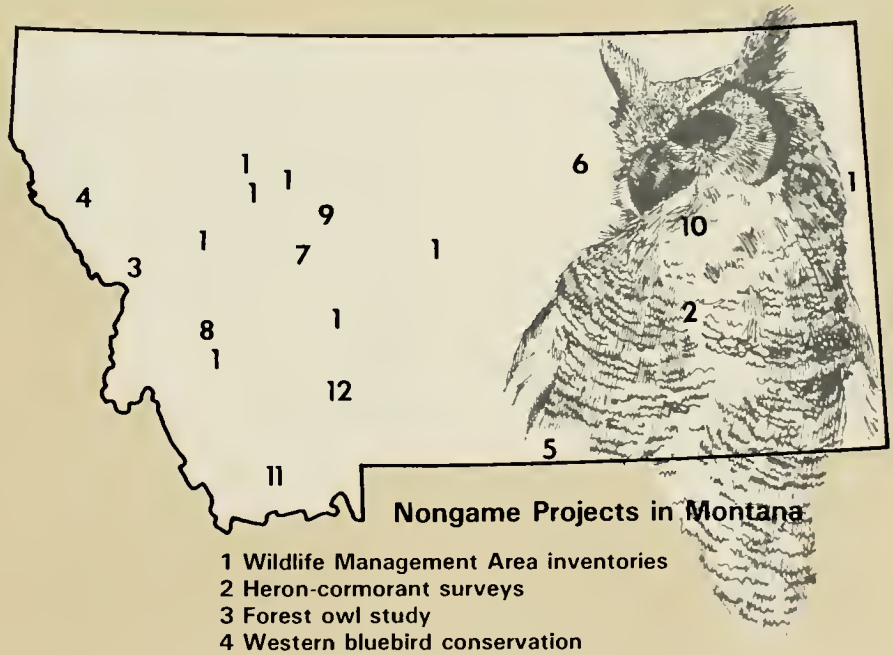
Wildlife managers recognize that each species has a value to the overall community in which it lives. Yet we are still in the infancy of understanding these complex relationships, especially when it comes to nongame. In fact, researching nongame in Montana is akin to exploring a new frontier. We continue to make exciting and terrain-breaking discoveries. For example, a 1988 Bureau of Land Management survey along the Yellowstone River revealed nesting by least terns. Least terns are a federally listed endangered species and before this survey we had no idea any lived in Montana.

We know that eagles and hawks live in Montana or pass through in spring or fall. However, by conducting a formal spring survey across the state each year since 1977, biologists are now able to detect population changes. These birds, called raptors, live at the apex or top of the food chain. Because certain toxins concentrate as they pass through the food chain, the apex predators are excellent indicators of environmental health. For instance, an ongoing study of golden eagles in the Shields River Valley by Dr. Al Harmata is showing alarmingly high lead levels in some of the spring migrants; the Department of Fish, Wildlife & Parks has assisted with the study and nongame check-off dollars have financed it. Where are the eagles picking up the lead? It will take more research and assistance from tax check-off dollars to find out.

Montana is one of 34 states with an income tax check-off for nongame. The check-offs collectively generate about $10 million annually. Yet, national projections show states need at least $50 million to manage, research, and promote awareness of nongame species. Montana's check-off brought in almost $22,000 in 1989.

Before 1983, when the Montana Legislature passed the check-off act, most wildlife conservation efforts focused on game and endangered species. Why? Game species receive benefits from state hunting and fishing license fees. Endangered species programs are funded mainly by the federal government. Yet, in between the two lies the vast majority of our wildlife heritage.

Recognizing the growing need to understand and promote our nongame species, the 1987-88 Montana Legislature authorized creation of a new position, nongame information specialist. With this position, the nongame program is now able to put more effort into letting people know about our nongame species and their needs. Volunteers also



Nongame Projects in Montana

1 Wildlife Management Area inventories
2 Heron-cormorant surveys
3 Forest owl study
4 Western bluebird conservation
5 White-tailed prairie dog inventory and burrow excavation
6 Burrowing owl studies
7 Osprey management
8 Red-necked grebe status investigation
9 White pelican status review
10 Swainson's hawk transects
11 Ferruginous hawk and prairie falcon status investigation
12 Golden eagle status investigation

play a critical role in observing birds and participating in bluebird nest box projects.

NONGAME CHECK-OFF CONTRIBUTIONS 1983-1988

Year	Total contributed	Number of contributors
1983	$35,427	6,630
1984	$34,060	6,218
1985	$31,869	4,146
1986	$24,616	3,108
1987	$20,463	2,521
1988	$21,698	2,359

We have only started to penetrate the surface as we unearth new information about Montana's wealth of nongame species. So remember, something wild is stirring on your tax form. Please check off line 49 for wildlife.

For more information on the nongame wildlife program, contact Deborah Richie, Department of Fish, Wildlife & Parks, 1420 East Sixth Avenue; Helena, MT 59620 (406/444-1276).

To Learn More About Owls...

Beginning on page 11 of this issue of *Montana Outdoors*, you'll find a guide, "Identification of Montana's Owls." If you're interested in more details than the guide provides, check out the following books:

Books for Children:

Mowat, F., "Owls in the Family," Little, Brown & Co., Boston, 1961.

Yolen, Jane, "Owl Moon," Scholastic Inc., New York, 1988.

Books for Adults:

Angel, T., "Owls," University of Washington Press, Seattle, 1974.

Austing, G.R. and J.B. Holt, "The World of the Great Horned Owl," J.B. Lippincott Co., New York, 1966.

Bunn, D.S., A.B. Warburton, and R.D.S. Wilson, "The Barn Owl," Buteo Books, South Dakota, 1982.

Burton, J.A. (editor), "Owls of the World," Tanager Books, New Hampshire, 1984.

Cameron, A. and P. Parnell, "The Nightwatchers," Four Winds Press, New York, 1971.

Craighead, J.J. and F.C. Craighead, "Hawks, Owls and Wildlife," Dover Books, New York, 1969.

Johnsgard, P.A., "North American Owls," Smithsonian Press, Washington, D.C., 1988.

Karalus, K.E. and A.W. Eckert, "The Owls of North America," Doubleday & Co., New York, 1974.

Maslow, J.E., "The Owl Papers," Vintage Books, New York, 1988.

Mikkola, H., "Owls of Europe," Buteo Books, South Dakota, 1983.

Nero, R.W., "The Great Gray Owl," Smithsonian Press, Washington, D.C., 1980.

Sparks, J. and T. Soper, "Owls," Taplinger Inc., New York, 1970.

Walker, L.W., "The Book of Owls," Knopf Inc., New York, 1974.

FW&P Helps Disabled

The Department of Fish, Wildlife & Parks seeks comment on a plan to remove many of the physical and administrative barriers that might have prevented disabled Montanans from tak-

As part of Montana's Centennial celebration, a Governor's Centennial Edition Waterfowl Stamp and Print are still available.

A limited edition of 870 stamps only was sold through a mail auction bid in September. In addition, 330 prints—one of which Governor Stan Stephens is signing as Fish, Wildlife & Parks Director K.L. Cool looks on—and matching stamps are available from most Montana galleries. Cost is $950. The stamp is embossed and the Centennial logo appears on the back. The stamps carry a number preceded by "89" to commemorate Montana's Centennial.

They are valuable to collectors because of the small edition size. Only nine other states have similar editions pending, and Oklahoma is the only other state to utilize the Centennial theme.

Total anticipated revenue from the sale of the special stamps and prints is $75,000 to $100,000. Funds raised will be used for enhancement and protection of waterfowl habitat in Montana, possibly on a specific project at some future date.

ing part in outdoor activities.

Copies of the proposed "Handicapped Accessibility and Transition Plan" to improve access for the disabled to the department's recreation sites and programs are available at all FW&P regional offices and at the Helena headquarters.

Beginning in April, open houses will be conducted at various locations around the state so department employees can answer questions and receive public comment about the program. For additional information, contact Arnold Olsen, Field Services Division, Department of Fish, Wildlife & Parks, 1420 East Sixth Avenue; Helena, MT 59620 (406/444-2602)

New Wildlife Administrator—Don Childress

Don Childress, a 17-year veteran of the Department of Fish, Wildlife & Parks, has been named administrator of the agency's Wildlife Division. Childress, who was assistant administrator of the division for the past three years, replaces Arnold Olsen. Olsen was reassigned to head FW&P's Field Services Division.

Don Childress

"Don has a reputation as one of the outstanding waterfowl biologists in the country," said FW&P Director K.L. Cool. "He has served as acting administrator for several months and has proved to be an able spokesman and communicator for the department. His work on the wildlife habitat bill, FW&P lands and their management, the upland game bird habitat enhancement bill, and implementation of statewide use of steel shot for waterfowl hunting show his ability to get things done."

Among Childress' administrative responsibilities are supervision of the Wildlife Division staff and program development in the wildlife management, research, and lands bureaus. He said his new position will also allow him to devote time to developing long-term resource programs. "As Montana continues to change, our wildlife program must keep pace with it if we are going to meet the needs of Montanans today and in the future," Childress said.

Childress said the statewide elk plan, the upland game bird habitat enhancement program, and the continuing job of keeping wildlife programs in line with their budgets will be matters of immediate concern.

Childress began his FW&P career as a wildlife biologist in 1972. He has served as the department's upland game bird and waterfowl coordinator.

Conservancy Launches Watersheds Effort

The Montana Nature Conservancy has received a $50,000 contribution from a 50-year resident of Montana and is launching a Watershed Protection Program to protect the biological integrity of Montana's key rivers, streams, and streamside corridors.

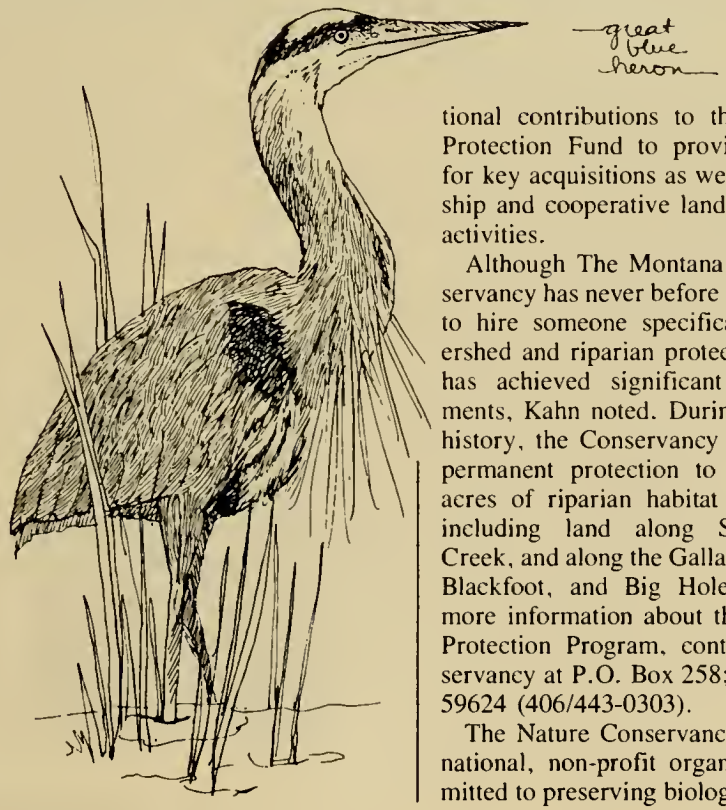
Brian Kahn, director of The Montana Nature Conservancy, stressed the cooperative nature of the effort: "The job of protecting Montana's critical streams is far beyond our capabilities alone. Success is going to depend on generating new partnerships with streamside landowners, agriculturalists, sportsmen, environmental groups, Indian tribes, and government agencies."

Kahn commended current private and government programs to improve riparian management, citing efforts of landowners, grazing associations, local conservation districts, government agencies, tribes, and the Montana Riparian Association. But despite these initiatives, many riparian tracts are in jeopardy.

"Escalating land values, high estate taxes, and other factors can squeeze the private landowner and lead to subdivision or other uses which damage critical habitat," Kahn said. "The Conservancy has tools which can help in these difficult situations, resulting in a win-win situation that benefits the landowner and permanently protects fish, wildlife, and watershed values."

Utilizing a portion of the new grant, the Conservancy will add a full-time staffer to work on the watershed effort. That person will consult with interested people and groups to discuss potential watershed projects.

The Conservancy will also seek additional contributions to the Watershed Protection Fund to provide resources for key acquisitions as well as stewardship and cooperative land management activities.



Although The Montana Nature Conservancy has never before had resources to hire someone specifically for watershed and riparian protection work, it has achieved significant accomplishments, Kahn noted. During its 10-year history, the Conservancy has provided permanent protection to over 20,000 acres of riparian habitat in Montana, including land along Sixteen Mile Creek, and along the Gallatin, Madison, Blackfoot, and Big Hole rivers. For more information about the Watershed Protection Program, contact the Conservancy at P.O. Box 258; Helena, MT 59624 (406/443-0303).

The Nature Conservancy is an international, non-profit organization committed to preserving biological diversity

through protection of critical habitat. It has protected more than 3.9 million acres of land in the United States and manages the largest private system of nature preserves in the world. The Montana Nature Conservancy has protected more than 320,000 acres of critical habitat in Montana, Kahn said.

The primary tool the Conservancy uses for permanent protection of privately held lands is the conservation easement. The Conservancy's fee lands and conservation easement lands remain on local tax rolls. The easement is a voluntary agreement between the Conservancy and a private landowner under which the landowner agrees to specific land management practices compatible with protection of key biological resources.

An easement typically permits agricultural and recreational uses, but controls certain types of development, including residential subdivision, major excavations, and industrial activities.

The management of private lands under conservation easements remains under control of the landowner, except for rights the landowner has voluntarily ceded to the Conservancy. Grazing, farming, irrigation, and other agricultural activities are typically allowed. The landowner also retains existing water rights. Decisions on public access for hunting, fishing, or other recreation remain with the landowner, Kahn said.—*The Nature Conservancy.*

BOOK REVIEWS

BUILDING THE HERD, as told by Bryan Hilger and written by Wendy Woollett, designed and edited by Patricia Kane, Tailight Studio, P.O. Box 1239, Helena, MT 59624; 1989, 223 pages, photographs, soft cover $14.95.

I spent an evening listening to Bryan Hilger not long ago. That's especially interesting, since I was about 50 miles from Hilger's house. However, that evening, I read his book "Building the Herd" and through it was given a very nice historical tour of the Beartooth country north of Helena.

It took me a little while to get into the book because I had a difficult time adapting to the writing style. But once I realized that I was reading almost verbatim transcriptions of conversations that Hilger had with editor Wendy Woollett, it was easier to follow the meandering telling of the Hilger story.

For anyone who lives in the area around the Gates of the Mountains (from Helena to Great Falls), "Building the Herd" is great reading because it fills in a lot of the historical and family details of the people who settled and ranched that country. The Sieben, Baucus, Hilger, and Steele families all figure into this story which begins in what the old-timers call the Beartooth country, known nowadays as the Sleeping Giant. Hilger speaks about how his family came into the polled hereford business as well as becoming involved with boat tours of the Gates of the Mountains. The Hilgers' enjoyment, admiration, and respect for the wildlife that was and is so plentiful in that area comes through loud and clear. The story ends in 1983 when the Hilgers sell the ranch and while doing so, grant a conservation easement to the Montana Land Reliance. They are also honored by the Montana Department of Fish, Wildlife & Parks for their stewardship and cooperation in managing the wildlife and natural resources of the area.

I asked others from around Helena what they thought of Hilger's reminiscences and how accurate they thought Hilger was. As with any recounting of history, there were a number of differences that people had with Hilger's perspectives. But by and large, almost everyone enjoyed it and admitted that Hilger did indeed provide a good flavor of the Beartooth and Helena from the teens through the 1970s. I'd suggest anyone else who'd like to meet and hear Bryan Hilger pick up a copy of "Building the Herd."—*Mike Korn, landowner/sportsman coordinator, Field Services Division, Helena*

MONTANA IS..., revised edition, verse and photographs by Mike Logan, Buglin' Bull Press, 32 South Howie, Helena, MT 59601; 1989, 96 pages, $11.95 soft cover.

Mike Logan is a man who wears many hats: Spanish teacher, fisherman, photographer, cowboy poet, author, faithful contributor to our magazine, and basic good guy who would probably do just about anything for his friends. He stops by our office now and then to shoot the breeze or to share a new poem. The newest feather in his cap is a revised edition of his book, "Montana Is...." Mike has put his feelings and perceptions about Montana into verse that is easy to read and easy to think about.

"It's bitterroot
A country church
A chipmunk on a sagebrush perch.
It's winter elk
A cattle pen
And beargrass in a shaded glen."

To this verse he has added his special touch of artistry in the form of color photos. Mike takes some extraordinary shots—a kid goat in new spring grass, a bald eagle close up—which many of us will never have the privilege of seeing. But what appeals to me with this combination of verse and photography is Mike's glimpse of the everyday, typical Montana in which all of us partake: a harvest moon, a field of ripened grain, a pickup on a dusty road.

His book provides a welcome sense of the familiar—like climbing into your soothingly warm shower after a week of camping.—*Donita Sexton, art director,* Montana Outdoors

Clutter Got You Behind the Old Eight Ball???

Stack 'em up in a MONTANA OUTDOORS binder—and start all over with a clean slate.

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Identification of Montana's Owls

boreal owl

by Denver W. Holt and Dale M. Becker
illustrated by Joe Thornbrugh

The following guide is to help you identify Montana owls. Owls are divided into two groups or subfamilies: Tytoninae (barn and bay owls) and Striginae (all other owls). In North America, the two groups are represented by 19 breeding species; 15 species occur in Montana.

Owls are basically nocturnal or crepuscular (active in the late morning or early evening). However, during winter, some species may be observed almost any time and in a variety of habitats because they are in search of food.

Because most owls are active in times of low light or complete darkness, they have evolved a low-frequency vocal repertoire as a means of communication. Familiarity with these primary songs can greatly facilitate owl identification.

Owls have two primary hunting methods: (1) "perch and pounce," which usually takes place from a low perch and is most common among forest owls, and (2) "quartering," which means flying low over the ground; it is most common among open-country owls.

Owls have evolved several important adaptations to help them cope with their lifestyle. Some of the most recognizable characteristics include:

- Large heads to accommodate large eyes and ears. Owls cannot move their eyes up, down, or side to side as humans can, so owls have evolved the ability to rotate their heads approximately 270 degrees.
- The ears in some species are asymmetrical (the right ear is longer and situated higher on the skull), allowing them to calculate flight angles when sounds are heard but prey cannot be seen.
- Owl feathers in many species are structured so that sound created by flight is absorbed; consequently, these owls can hear but not be heard by potential prey when flying.
- Owls usually vocalize at low frequency. These sound waves carry long distances and are not absorbed by barriers such as vegetation as quickly as high-frequency vocalizations.

IDENTIFICATION OF MONTANA OWLS

The illustrations and accompanying text are designed to help you identify Montana owls and provide some basic life history. In North America, female owls are larger than males, with the exception of the burrowing owl.

For identification purposes, owls are often separated into those with "eartufts" or "horns" and those which are "round-headed." In the owl descriptions which follow, we have used "tufts" instead of "eartufts" or "horns" to denote the specialized feathers arising from the heads of many owls. We have retained use of "round-headed."

If you're in the field and trying to identify Montana owls, make the following items part of your check list:
(1) Determine if the owl has tufts or is round-headed.
(2) Note eye and bill color.
(3) Note plumage color and other distinctive markings.
(4) Note relative size of the owl—for example, compare it with the size of your hand, the distance from your elbow to your fingertip, or the length of your arm.
(5) Note details of the owl's habitat and check distribution maps.

By using a combination of these field tips, you should be well on your way to identifying any owl you might see in Montana.■

Long-Eared Owl

(Asio otus)

FIELD MARKS: Tufts appear to sit on the middle of the head above the eyes. Eyes yellow, bill black, and throat dark. Facial disk circular and rusty/brown; color intensity varies. Chest and belly are mixed with horizontal and vertical markings. Ventrally, mottled brown. Dorsally, the back is mottled with mixtures of brown. **SIZE**: 13 to 16 inches. **WEIGHT**: eight to 10 ounces. **SIMILAR SPECIES**: Great horned owl is much larger, tufts set wider on the head, and the throat is white. **HABITAT**: Long-eared owls are most often observed in hedgerows, woody draws, and juniper thickets, although they do occur within the forest edge. They are predominantly open-country hunters; however, they are seldom seen because of their nocturnal habits. **VOICE**: A soft, "Hoo, hoo, hoo...," varying in number and given at two- to three-second intervals. **NATURAL HISTORY**: Begins nesting in March or April; nests in a stick nest built by other raptors, magpies, crows, or ravens. Clutch size three to six. Incubation about 26 days. Young fledge at 30 to 40 days. Migratory in northern latitudes, although some owls may stay throughout the winter. **FOOD HABITS**: Depends heavily on small rodents. **STATUS**: Listed as a species of special concern by the Department of Fish, Wildlife & Parks.

Great Horned Owl

(Bubo virginianus)

FIELD MARKS: A large owl, hard to mistake. Tufts appear to sit wide on the head. Eyes yellow, bill black, throat white. Facial disk variable in color, but usually dark rust to brown. Ventrally, heavy dark brown horizontal barring from the chest to the lower abdomen. Dorsally, the same colors exist as ventrally; however, there is more mottling. Because of its wide distribution and adaptability to any habitat, plumage color varies greatly, depending on location. **SIZE**: 20 to 25 inches. **WEIGHT**: 46 to 61 ounces (three to four pounds). **SIMILAR SPECIES**: Long-eared owls are smaller and slimmer, with tufts set closer to the middle of head. The throat is dark. **HABITAT**: Occurs from river bottoms to timberline throughout the state. **VOICE**: A booming, "Whoo, whoo whoo whooo, whooo-whooo...," loud and unmistakable. **NATURAL HISTORY**: Begins nesting in February. Nests in stick nests made by other birds, broken-topped snags, hollow trees, and cliff cavities. Clutch size two to four. Incubation 30 to 35 days. Young fledge at approximately 45 to 55 days. Resident year-round; however, birds living in the northern part of the species' range may migrate south. **FOOD HABITS**: Capable of eating small to medium-sized mammals and birds. Probably takes an occasional goose or turkey. Snowshoe hares and skunks are generally the largest mammals taken. **STATUS**: Common in Montana, and the owl most often observed by the public.

Northern Saw-Whet Owl

(Aegolius acadicus)

FIELD MARKS: Round-headed, eyes yellow, bill black. Facial disk reddish/brown; forehead has short white vertical streaks. Ventrally, reddish/brown streaking extends from neck to belly. Dorsally, brown with white spots. Juvenile has dark reddish/brown facial disk and white forehead. Upper chest is reddish/brown grading into dark rust belly and flanks. Juveniles molt into adultlike plumage by early winter. **SIZE**: seven to eight inches. **WEIGHT**: three to four ounces. **SIMILAR SPECIES**: Boreal owls are slightly larger, have a yellow/white bill, rectangular head, whitish facial disk, and are darker brown overall with no reddish tinge.

HABITAT: Most common in coniferous forests; however, they can be found in deciduous trees along watercourses. **VOICE**: A monotonous, "Toot, toot, toot...," given rapidly and persistently throughout the night. Similar to one of the northern pygmy-owl's calls. **NATURAL HISTORY**: Begins nesting in April. Nests in woodpecker holes and possibly natural cavities. Clutch size four to six. Incubation approximately 26 days. Young fledge at approximately 30 days. Migratory, although some birds may remain throughout winter. **FOOD HABITS**: Predominantly small mice, although small birds and insects are probably also eaten. **STATUS**: Listed as a species of special concern by the Department of Fish, Wildlife & Parks.

Boreal Owl

(Aegolius funereus)

FIELD MARKS: Round-headed, although head appears rectangular. Eyes yellow, bill yellow/white. Facial disk white, surrounded by distinct black trim. Forehead spotted. Ventrally, white with brown vertical streaks along chest, sides, and flanks. Dorsally, brown with large conspicuous white spots. Juveniles have a dark brown/black facial disk, white forehead, and are light chocolate brown throughout the upper chest, grading into light brown on the belly. By early winter, juveniles resemble adults in plumage. **SIZE**: nine to 11 inches. **WEIGHT**: four to six ounces. **SIMILAR SPECIES**: Saw-whet owl is smaller, bill is black, has reddish/brown on the facial disk, and ventral streaking.

HABITAT: High elevation spruce/fir forest, with lodgepole pine sometimes present. **VOICE**: "To, to, to, to...," given rapidly and varying in number. Voice is similar to common snipe. **NATURAL HISTORY**: Begins nesting in late March or April. Nests in woodpecker holes or possibly natural cavities. Clutch size two to six. Incubation approximately 28 days. Young fledge at approximately 30 days. Resident and migratory, with some elevational migration. **FOOD HABITS**: Predominantly small mammals, with a few birds and insects. **STATUS**: Before 1984, considered a Canadian migrant to Montana. Since then, surveys have found these owls common in forests above 5,000 feet in western Montana. First Montana nest site discovered in 1988. Under consideration for listing as a species of special concern by the Department of Fish, Wildlife & Parks.

Burrowing Owl
(Athene cunicularia)

FIELD MARKS: Round-headed, eyebrows white, eyes yellow, and bill yellow/white or yellow/black. The head is spotted. Facial disk less distinct than in other owls. Ventrally, brown horizontal bars from neck to belly. Legs are long and very sparsely feathered. Dorsally, the brown back is spotted with white. Juveniles are similar to adults, except the head is plain brown, the upper chest has a dark tan band, and the lower chest and belly are whitish. **SIZE**: nine to 10 inches. **WEIGHT**: five to six ounces. **SIMILAR SPECIES**: Short-eared owls are larger, have a black bill, and have mothlike flight. **HABITAT**: Rangelands and prairie. **VOICE**: "Coo-cooo, coo-cooo...," given approximately two seconds apart. **NATURAL HISTORY**: Begins nesting in April. Nests in burrows made by prairie dogs, badgers, and other medium to large fossorial (digging or burrowing) animals. Also, burrowing owls are capable of doing some digging themselves. Clutch size seven to 10. Incubation approximately 28 days. Young fledge at 40 to 45 days. Migrates to warmer climates in southwestern United States during October and beginning in March, returns to Montana. **FOOD HABITS**: Grasshoppers, beetles, other ground insects, and small mammals. **STATUS**: Listed as a species of special concern by the Department of Fish, Wildlife & Parks. Limited by conversion of rangelands to croplands. May have been affected by mammal poisoning programs. Because of habitat loss, the intermountain valley populations in western Montana are almost gone.

Short-Eared Owl

(Asio flammeus)

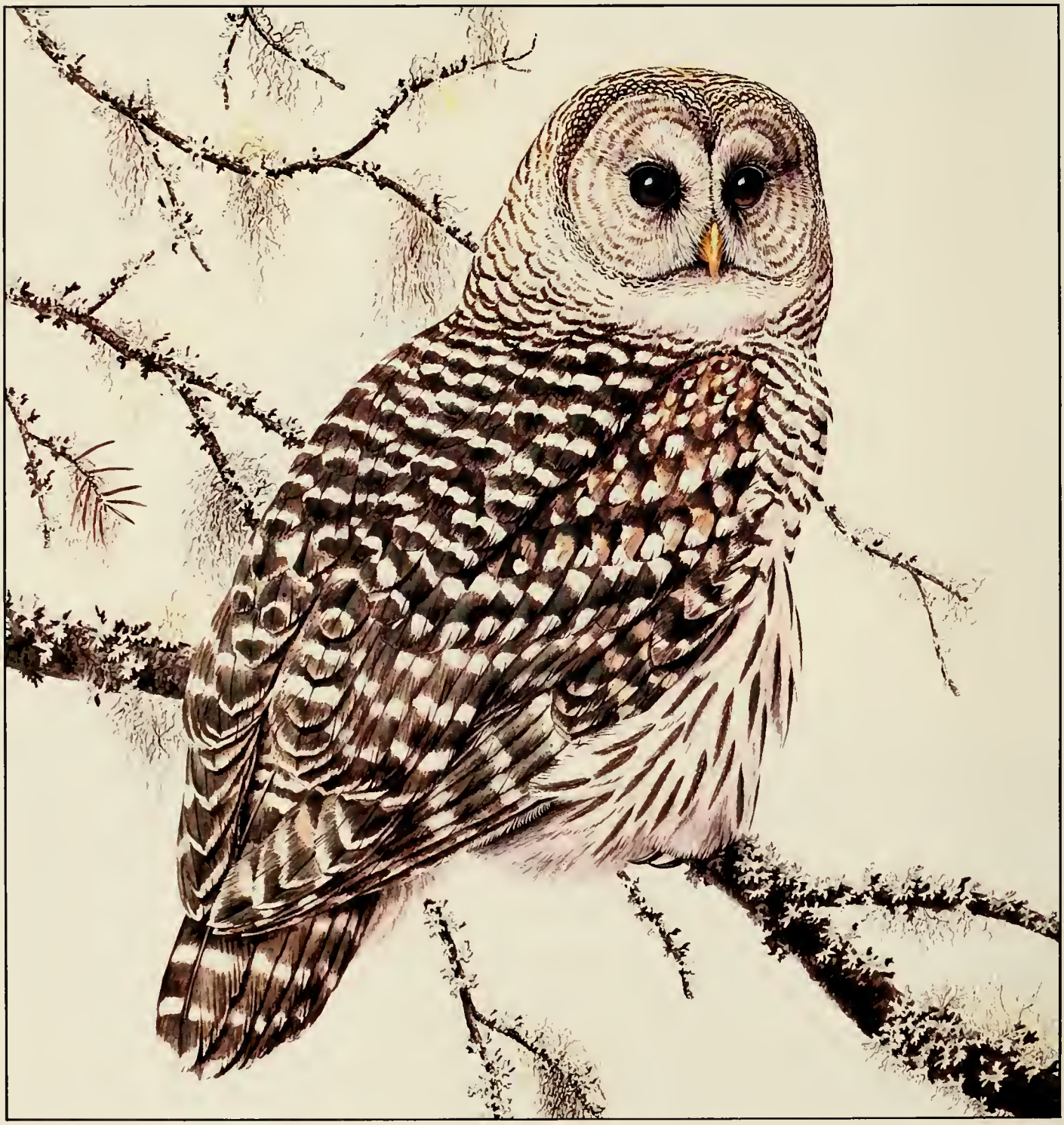
FIELD MARKS: Tufts very small and inconspicuous, generally not seen except when female is in camouflage position at nest. Should be considered a round-headed owl for identification. Eyes yellow, bill black. Facial disk circular, grayish white with black orbits. Juvenile owls retain more black on disk until fall. Ventrally, buffy brown with vertical streaks, paler on belly. Dorsally, mottled buffy/brown. In flight, dark "wrist" on underwing is a key field mark, coupled with mothlike flight. **SIZE**: 13 to 17 inches. **WEIGHT**: 11 to 14 ounces. **SIMILAR SPECIES**: Long-eared owl has smaller "wrist" patch, buffy underwings, and darker belly. Although long-eared owls hunt similarly to short-eared owls, they are rarely seen hunting during the day. Burrowing owl is much smaller and has a yellow to whitish bill. **HABITAT**: Open grasslands, plains, and agricultural areas with suitable vegetation and food. **VOICE**: "Hooh, hooh, hooh...," given approximately 15 times during courtship flight. Courtship song is also accompanied by an audible wing-clap and dive between calls. **NATURAL HISTORY**: Begins nesting in late February to March. Nests on the ground in a small depression, often with grasses placed around the depression; nest resembles a small bowl. Clutch size four to 10. Incubation approximately 26 days. Young fledge at 30 to 40 days. Migratory; however, some individuals may not migrate. **FOOD HABITS**: A vole or field mouse specialist—almost the entire diet made up of these small rodents. **STATUS**: Common throughout the state in suitable habitat.

Barred Owl

(Strix varia)

FIELD MARKS: Round-headed, eyes brown, bill yellow. Facial disk whitish/brown with dark brown trim. Ventrally, a short bib across neck and upper chest, marked with horizontal brown barring. Chest, sides, and belly vertically streaked with dark brown on white. Dorsally, mottled brown and white. **SIZE**: 19 to 21 inches. **WEIGHT**: 22 to 29 ounces (one to two pounds). **SIMILAR SPECIES**: Great gray owl has yellow eyes, is larger, has a long tail, and is gray.

HABITAT: A wide range of habitats, especially wet areas and deep woods. **VOICE**: "Who, who, who-whooo...," usually given at least twice. Loud and resounding. **NATURAL HISTORY**: Begins nesting March to April. Nests in broken-topped snags, natural cavities, and old stick nests built by other birds. Clutch size two to four. Incubation approximately 30 days. Young fledge at 35 to 40 days. Probably year-round resident. **FOOD HABITS**: Small to medium-sized mammals and birds. **STATUS**: Appears to be increasing. First nest found in Montana in 1976. Very little known about biology, ecology, and distribution in Montana.



Great Gray Owl

(Strix nebulosa)

FIELD MARKS: Round-headed, eyes yellow, bill yellow. Facial disk large and prominent, gray within and surrounded by a black border. White throat patch is evident. Ventrally, the owl is mottled with varying shades of dark and light grays, browns, and white. Dorsally, colors appear the same, although there is less white. Overall plumage appears gray. The tail is long and extends beyond the folded wings. **SIZE**: 24 to 33 inches. **WEIGHT**: 33 to 46 ounces (two to three pounds). **SIMILAR SPECIES**: Barred owl is smaller, has brown eyes, and the overall color is brown and white. **HABITAT**: Dense forests, often moist and with openings for hunting. **VOICE**: A loud low and descending, "Wooooo, woooo, wooo, woo, woo, wo...," that fades. **NATURAL HISTORY**: Begins nesting in March or April. Nests on broken-topped snags or old stick nests of other birds. Clutch size four to five. Incubation approximately 30 days. Young fledge at 35 to 40 days. Probably resident year-round with some elevational migration. **FOOD HABITS**: Small rodents such as voles and pocket gophers. **STATUS**: Listed as a species of special concern by the Department of Fish, Wildlife & Parks. As recent surveys in western Montana indicate, probably more common than previously thought.

Northern Pygmy-Owl
(Glaucidium gnoma)

FIELD MARKS: Round-headed, eyes yellow, bill yellow, yellow/green, yellow/black, or yellow/white. Eyebrows distinctive white. Feathers extending from back of eyebrows can be raised—like tufts—when alarmed. True facial disk absent. Head finely spotted. Ventrally, dark mottled head and neck, giving way to white chest, belly, and sides, with vertical brown streaking. Dorsally, dark mottling with conspicuously long tail. Has conspicuous false eyes or eye marks on back of head. **SIZE**: six to seven inches. **WEIGHT**: two to three ounces. **SIMILAR SPECIES**: None. **HABITAT**: Not well known, most often seen in mixed fir forests, but can be found from river bottoms to timberline. **VOICE**: Two songs. One is "Toot, toot, toot...," given rapidly six to eight times. Song is similar to that of saw-whet owl and the two are difficult to distinguish. This song is most often heard in fall, winter, and the early part of the breeding season. The second song, "Toot (pause) toot...," is the typical breeding season call. **NATURAL HISTORY**: Begins breeding in April. Nests in woodpecker holes and possibly natural cavities. Clutch size three to five. Incubation not well known, but probably around 25 days. Young fledge at approximately 30 days. Probably resident year-round, with some elevational movements. **FOOD HABITS**: Small birds, mammals, insects, and probably a few reptiles and amphibians. Small birds may be an important part of its diet. **STATUS**: Listed as a species of special concern by the Department of Fish, Wildlife & Parks.

Northern Hawk-Owl

(Surnia ulula)

FIELD MARKS: Round-headed, although head somewhat rectangular, eyes and bill yellow, eyebrows white, and forehead spotted. Facial disk white bordered on sides by thick black trim. Ventrally, heavily marked with dark brown horizontal barring, from the neck to the undertail. Dorsally, dark brown with white spotting throughout. Very long tapered tail. **SIZE**: 14 to 18 inches. **WEIGHT**: 10 to 12 ounces. **SIMILAR SPECIES**: None. Looks more like small falcon. **HABITAT**: Northern coniferous forests to the tundra edge. **VOICE**: "Ululululululu...," a whistlelike call lasting approximately 10 seconds per turn. **NATURAL HISTORY**: Begins nesting in April or May. Nests on broken-topped snags or in woodpecker holes. Clutch size three to nine. Incubation approximately 27 days. Young fledge at 25 to 35 days. Migratory, although some of the population remains on the breeding range throughout winter. **FOOD HABITS**: Predominantly small mammals. **STATUS**: A rare winter visitor to Montana, with fewer than 20 records in the state. Given its range, it may occur more often, but is simply overlooked.

Common Barn-Owl

(Tyto alba)

FIELD MARKS: Round-headed, eyes brown, bill long and white. Facial disk white, somewhat heart-shaped, and bordered by white, dark brown, or tan trim. Ventrally, ranging from white to light rust with brown spotting. Dorsally, light rust with scattered grayish mottling. Plumage varies according to geographic location. **SIZE**: 15 to 18 inches. **WEIGHT**: 15 to 18 ounces (one pound). **SIMILAR SPECIES**: Possibly snowy owl; however, the snowy owl has yellow eyes and black bill, and contrasting black and white color. The short-eared owl has yellow eyes and black bill and is more golden/brown. **HABITAT**: Most often associated with rural areas, near agricultural fields and grasslands. **VOICE**: A variety of vocalizations; however, the typical call is a screech, "Shrreeeee, shrreeeee...," lasting about two seconds per call. **NATURAL HISTORY**: Begins nesting in March or April. Frequently brings off two broods per nesting season. Nests in many manmade structures (buildings, bridges, nest boxes) as well as natural sites (hollow trees, holes in cliffs or banks). Clutch size two to 11. Incubation approximately 33 days. Young fledge at 50 to 60 days. Migratory in colder parts of its range. **FOOD HABITS**: Small to medium-sized rodents. **STATUS**: A rare stray or accidental species in Montana, with fewer than 15 records in the state.

Snowy Owl

(Nyctea scandiaca)

FIELD MARKS: Round-headed, eyes yellow, bill black. Feet heavily feathered. Lacks true facial disk. A distinctive white owl with varying degrees of dark brown spotting and barring. Adult males are almost pure white, although they have up to three tail bands. Adult females are distinctly barred throughout, although white still dominates. Females usually have from four to six tail bands. Immatures are very heavily barred throughout, and dark spotting may co-dominate or dominate the overall plumage. Intensity of dark spotting varies with the sex of the immatures; females are the darkest. An easy owl to recognize. **SIZE**: 20 to 27 inches. **WEIGHT**: 59 to 70 ounces (3.5 to 4.5 pounds). **SIMILAR SPECIES**: Possibly barn-owl; however, the barn-owl has brown eyes, a white bill, and a heart-shaped facial disk. Also, they are rusty or tawny colored dorsally. The short-eared owl may also be confused; however, its overall color gives a golden/brown appearance and it is much smaller. **HABITAT**: Breeds on Arctic tundra. Winters primarily on open plains, and in coastal and agricultural areas. **NATURAL HISTORY**: Begins breeding in May or June. Nests on the ground. Clutch size four to nine. Incubation 32 days. Young fledge at 50 to 60 days. Migratory, but adults tend to remain farther north. **FOOD HABITS**: Primarily voles and lemmings, although capable of taking ptarmigan, ducks, geese, hares, and rabbits. **STATUS**: A regular winter visitor on the plains, but occasionally seen in the inter-mountain valleys.

Eastern Screech-Owl
(Otus asio)

FIELD MARKS: Tufts present, eyes yellow, bill yellow/green or yellow/white. Facial disk gray/white surrounded by black fringe. Ventrally, pale brown to whitish with scattered dark brown streaks extending from chest along sides and flanks. Dorsally, buffy/gray throughout. Also, eastern screech-owls inhabiting deciduous forests of the eastern United States have a rufous (rust) color phase. A specimen of this color phase has yet to be secured in Montana. **SIZE**: eight to 10 inches. **WEIGHT**: six to seven ounces. **SIMILAR SPECIES**: Western screech-owl is similar in size, although slightly larger. Bill black to gray/green or gray/black. The overall plumage is gray. **HABITAT**: Primarily cottonwood bottoms. **VOICE**: Two parts: First part, a quavering, drawn out ascending whistle, "Wheeeee...," similar to a horse's whinny. Second part, a vibrating low whistle, "Quohoho-ho...," run together. Calls are short. **NATURAL HISTORY**: Begins nesting in March. Nests in natural cavities or woodpecker holes. Clutch size three to seven. Incubation approximately 26 days. Young fledge at approximately 30 days. Resident throughout year. **FOOD HABITS**: Primarily small mammals and a few birds. **STATUS**: Distribution poorly known in Montana. Known to occur on the plains east of Continental Divide. However, how close this species extends its range to the Rocky Mountain Front is one of the most interesting owl questions in the state.

Western Screech-Owl

(Otus kennicottii)

FIELD MARKS: Tufts present, eyes yellow, bill black to gray/green or gray/black. Facial disk gray and surrounded by black border. Ventrally, a heavily marked owl with dark brown horizontal barring and vertical streaking, creating a uniform dark coloration. Dorsally, same as ventrally, but with distinct white spotting on shoulders. **SIZE**: eight to 10 inches. **WEIGHT**: six to eight ounces. **SIMILAR SPECIES**: Eastern screech-owl in Montana has much lighter plumage and has a lighter bill ranging from yellow/white to yellow/green. **HABITAT**: Primarily cottonwood bottoms, but may exist along fringes of coniferous forests where the two habitats overlap. **VOICE**: Two calls: First call, "Toot, toot, toot toot toot toot...," accelerating in tempo, similar to a bouncing ball. Second call is a trill. **NATURAL HISTORY**: Begins breeding in March. Nests in natural cavities or woodpecker holes. Clutch size three to seven. Incubation approximately 29 days. Young fledge at approximately 30 days. Probably year-round resident. **FOOD HABITS**: Predominantly small mammals and a few birds. **STATUS**: Probably common along cottonwood bottoms in western Montana. Distribution still poorly known. Occurs east of the Continental Divide in the Bozeman area. How far east this species extends onto the plains and its relationship with the eastern screech-owl is an important owl question for Montana.

Flammulated Owl

(Otus flammeolus)

FIELD MARKS: Tufts small but evident. Eyes dark brown, bill grayish/white. Two color phases: gray in the northern parts of its breeding range and red/brown in the southern. Facial disk present and corresponds to the color phase. Ventrally, heavily mottled gray. Dorsally, mottled gray with distinct rusty colored shoulder spots, creating a line from the shoulder down across the side of the wing. **SIZE**: five to six inches. **WEIGHT**: two to three ounces. **SIMILAR SPECIES**: Eastern and western screech-owls. However, both of these species have yellow eyes, lack the rusty shoulder patch, and are larger. **HABITAT**: Not yet known for Montana, but suspected to be mature to old-growth ponderosa pine forest with Douglas-fir understory. **VOICE**: "Boop, boop, boop...," given softly and slowly at approximately two-second intervals. **NATURAL HISTORY**: Nesting probably begins in early June. Nests are located in woodpecker holes or natural cavities. Clutch size is two to four. Incubation is approximately 21 days. Young fledge in 20 to 25 days. Presumably migrates to Mexico in October, returning to Montana in mid-May. **FOOD HABITS**: Almost entirely insects, primarily moths, beetles, crickets. Very rarely, small mammals may be eaten. **STATUS**: This owl under consideration as a species of special concern by the Department of Fish, Wildlife & Parks. The first Montana nest record was found by a woodcutter in 1986.

READERS RESPOND

Photo Issue Draws Rave Reviews

The most rewarding tasks require patience and deftness few of us possess. Such talent is reserved for people such as your camera professionals whose work adorns your remarkable Special Photo Issue of *Montana Outdoors*.

What a privilege it is to have my name associated with such an exquisite magazine.

Congratulations on your continuing pursuit of excellence.—*Stan Stephens, Governor, State of Montana*

* * * * *

The beautiful Special Photo Issue aroused many pleasant memories of your great state.

My attraction for Montana began in 1930, when, as a junior forestry student at Pennsylvania State University, I was given a summer job with the U.S. Forest Service on the Lewis and Clark National Forest. I was stationed at the Teton Ranger District, the headquarters of which was on the Rocky Mountain Front, 25 miles northwest of Choteau.

I had the happy experience to work under District Ranger Walter N. Streeter. He provided a riding horse, as we packed up the Teton River Valley and into the Sun River country and then back to the Chinese Wall.

This was a great summer, and I became acquainted with much of the Sun River area, now included in the Bob Marshall Wilderness. I returned to Pennsylvania in late August of that year to conclude my forestry degree.

Meanwhile, I kept in touch with Walt Streeter, telling him that some time I would make a return visit. Finally in 1962—32 years later—my wife and I assembled camping gear and we revisited Walt and his wife, Mary. While there, we became acquainted with Chuck Blixrud and his 7 Lazy P Guest Ranch along the Teton River. Since 1962, we have returned to Montana and have taken seven pack trips into the Bob Marshall, using the facilities of the 7 Lazy P. On several trips, we have been accompanied by Bob Cooney, who was with your Wildlife Division before his retirement.

My acquaintance with Montana explains my enthusiasm for the magazine, the photographs of which are captioned with quotes from A.B. Guthrie, Jr. I highly prize Guthrie's "The Big Sky" and "The Way West."—*Marlin H. Bruner; Clemson, South Carolina*

* * * * *

I've wondered a time or two why I take *Montana Outdoors*. When I received the Jan./Feb. issue, I changed my mind. How I enjoyed it!

Please come out with an issue like this the other five times per year your magazine comes out. Why not 12 a year?—*William A. Stewart; Pendleton, Oregon*

* * * * *

Your Special Photo Issue is the best ever! We only regret you did not include a photo of the grizzly bear.

Please send me 10 copies, which I plan to send to friends USA-wide, and to Puerto Rico and Hong Kong.—*Col. G.W. Schilling, Jr.; Pacific Palisades, California*

* * * * *

The Jan./Feb. issue of *Montana Outdoors* truly was a **Special** Photo Issue. It was superb.

The excerpts from A.B. Guthrie, Jr.'s writing just added the frosting on the cake. I was reared on the eastern plains of Montana and I could relive those days through his eyes and words.—*Esther W. McCurdy; Polson*

* * * * *

I just closed the back cover of the Jan./Feb. issue.

I looked at the pictures with relish. I read the captions with hope. I realized it's not just Montana, but the whole earth.—*Sally Hileman; Bellingham, Washington*

Keep Those Photos Coming

I just received the latest photo issue of *Montana Outdoors*, and again the issue is impressive.

As an amateur photographer, I love to see this issue, but what I would really like to know is how would an amateur such as myself get a picture published in the magazine?

I would appreciate any information you could give me as I would like to see one of my own pictures in the next photo issue.—*Brian Erickson; Silver Bow*

• *We had more than 3,000 slides submitted for consideration in this year's photo issue. We are always willing to review slides submitted by both professional and amateur photographers. Periodically, we send out a "photo want list," detailing our upcoming photo needs. Add your name to this list by writing: Donita Sexton, art director,* Montana Outdoors, *Department of Fish, Wildlife & Parks, 930 Custer Avenue West; Helena, MT 59620 (406/444-2474).*

Especially Worthwhile

I've been receiving your beautiful magazine for several years. Every issue is most worthwhile, but I especially liked the Sept./Oct. 1989 number.

The article, "Musselshell Magic," with Randy Bishop's wonderful illustrations and the pictorial review of "The Last Best Place" were outstanding.

Yours is surely one of the best of the Montana publications.—*David C. Andrews, editor,* The Piegan Storyteller, *official publication of the James Willard Schultz Society; New Bern, North Carolina*

Unfolding Adventure

Your magazine brings back so many wonderful memories of living in Montana (1984-85).

The mountains, the people, and the scenery are truly what make Montana "Big Sky Country." I always look forward to my next issue knowing the pages will unfold yet another adventure for me.—*Tina Y. Dunstan; Fuquay-Varina, North Carolina*

Wednesday, November 22, 1989—3 p.m.

Missouri River waters below Canyon Ferry Dam roil with spawning kokanee salmon. Again and again, glistening red bodies and toothy jaws break the surface near shore. On the banks of this stretch of the river at the head of Hauser Lake, other fish lie still, their reproductive task accomplished. For bald eagles, the death of salmon means a Thanksgiving feast.

Here, only 20 minutes from Montana's state capital, we count 61 eagles

by Deborah Richie
illustrated by Don Jensen

A Gathering at Hauser

within a half-mile stretch of river. And it seems the gathering has just begun. Across the river I watch three immature birds scuffle over a single kokanee. Their high-pitched twittering reaches a clamorous peak as one eagle flaps off victorious, clutching half a salmon. The scruffy trio have full adult stature, but lack the regal white head and tail. By the time they are 3 to 4 years old, they will become indistinguishable from their seniors, who may live to be 45.

Black specks clear the high ridge, lowering until 15 eagles glide on wind thermals. Scan the ponderosas that cling tenaciously to arid cliffs. There, on that dead tree upslope. Do you see the knotty bumps? Look closely with binoculars. Sure enough, six immature eagles hunch like vultures. Look downstream farther and three white splotches in three tall pines turn into resting adults.

Ken Pekoc, reporter from the Helena Independent Record, scribbles notes, while Dennis Flath, nongame coordinator for the Department of Fish, Wildlife & Parks, and Larry Rau, Bureau of Land Management (BLM) biologist, and I revel in the number of eagles arriving from Canada. As they follow the river courses south, the sharp-eyed birds focus on salmon spawning grounds as if they possessed sophisticated radar.

Storm clouds swirl and lower to the river as the Arctic winds bite deep. I thread my way through sagebrush clumps to river's edge and look past the trailers scattered on the west bank to the wild cliffs and forests beyond. Here, on this very river in spring 1805, Meriwether Lewis noted "the Bald Eagle are more abundant than I ever observed them in any Part of the country."

After serious declines in the late 1960s, in 1989 to see bald eagles circling, feasting on fish, and riding the thermals once again seems ample reason to celebrate Thanksgiving.

Saturday, December 9—2 p.m.

Spotting scopes, binoculars, and cameras line the river banks. Their owners focus intently on a pair of adult eagles across the river that periodically swoop out above the waters from a cottonwood. The word is out. More than 200 bald eagles were counted several days earlier along the river. News spread as fast to Montana's newspapers and TV stations as fish-feasting news spread among eagles.

After the demise of the Flathead Lake kokanee fishery and the corresponding decline in fall eagle migrants stopping in Glacier National Park, Montana's eagle watchers were searching for a new hot spot. In October, a recorded high of 83 eagles descended on a salmon run on Canada's Kikomun Creek, a tributary of Lake Koocanusa. About the same number were spotted in November on the Kootenai River just downstream from Libby Dam, feeding on fish filtered through turbines. Biologists speculate that the Hauser Reservoir eagle congregation is probably made up of different eagles than those formerly at Glacier.

People flocking to Hauser Lake below Canyon Ferry Dam took resource agencies by surprise. The first weekend after Thanksgiving, hundreds jammed both sides of the river and the eagles moved downstream to quieter grounds—and out of view. However, FW&P, the BLM, the Bureau of Reclamation, and the U.S. Fish and Wildlife Service (USFWS) reacted quickly and soon had signs guiding people to one viewing spot at Riverside. This allowed the eagles to perch comfortably across the river and downstream. Next year, managers will plan to provide both good viewing for people and security for eagles.

As I pack up my spotting scope and survey people watching eagles, I am struck by the respect I see among adults and children for a magnificent bird—the kind of respect that has enabled bald eagles to return from the brink of extinction.

Tuesday, December 12—morning

"It's CBS this time," says Rob Hazlewood of the USFWS. "They want to film eagles too."

After discussing details, I hang up the phone and soon join the second national news team filming eagles on Hauser. A few days before, an NBC correspondent had spent the day with biologists filming and interviewing.

Admittedly, I jump at every chance to return to see the eagles. Who can ever tire of watching birds with seven-foot wingspans rolling effortlessly in the air or gliding overhead close enough to see the slight tilt of tail and spread wing tips? A young bird locks talons in midair with an adult and spins away. The magnificent, white-headed bald flaps off, its fish secure in viselike claws.

I breathe in the frigid air, listen to geese honking, buffleheads whistling by, and that faint twitter of eagles. At my feet a porcupine skull, weathered to ivory white, lies cradled in rabbitbrush branches. I stoop to look closer and in a skiff of snow notice mouse tracks circling in patterns like those of eagles high above. There's beauty, too, in these subtle forms of life within the eagles' realm.■

CONTRIBUTORS

• "Boop, boop, boop...." "Wheeeee...." "Toot, toot, toot toot toot toot toot...." Who or what would make such sounds? The answer is: owls. And voice is just one way to identify them (the voices depicted above are those of the flammulated, eastern screech-owl, and western screech-owl). Another is to turn to "Identification of Montana's Owls" on page 11 and read the text by **Denver W. Holt** and **Dale M. Becker**; in addition to voice, they tell you about the field marks, size, weight, similar species, habitat, natural history, food habits, and status of the 15 owl species that live in Montana. If you'd rather look at pictures, the owl paintings by **Joe Thornbrugh** are not only pleasant to look at, but they're also accurate. Thornbrugh is a Victor artist who is best known for his colorful paintings of feathered creatures. His work graces not only the ID guide but also the wrap-around cover and a story about the fact that he won the 1990 waterfowl stamp contest (see page 2). This issue's front cover—"Eyes of the Forest—Great Horned Owl" is available as a limited edition print, signed and numbered by the artist. Cost is $45 (unframed), and it is available from Red Crow Studio and Gallery, 2033 Red Crow Road; Victor, MT 59875. Thornbrugh wishes to thank Denver Holt for technical advice in ensuring accuracy of the paintings and Dr. Richard Hutto of the University of Montana Biological Sciences Department for allowing access to owl specimens. Holt is the executive director of the Owl Research Institute, Inc., based in Missoula. Becker is the wildlife program manager for the Confederated Salish and Kootenai Tribes in Pablo.

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• Eagles feeding on kokanee at Glacier National Park was an annual event that hundreds of people in the Flathead—and hundreds from all over the country—looked forward to each year. But then the salmon population plummeted, and the eagle sightings followed suit. Eagle enthusiasts began to look for another spot from which they could view these magnificent white-headed birds. This fall there was "A Gathering at Hauser," about 20 minutes from Helena. And gather at Hauser they did—both eagles and people. **Deborah Richie** reports 61 eagles within a half-mile stretch of the Missouri on November 22. More than 200 bald eagles were counted along the river in early December. As she notes, "News spread as fast to Montana's newspaper and TV stations as fish-feasting news spread among eagles." Local newspaper reporters, crews from CBS and NBC, as well as scores of dedicated eagle watchers descended on the area, causing the eagles to move downstream to quieter grounds. Next year wildlife managers plan to provide outstanding viewing for people as well as security for eagles. Turn to Richie's article on page 28. She recently joined the Department of Fish, Wildlife & Parks' Conservation Education Division as the nongame information specialist. She previously was a free-lance journalist with material appearing in *National Wildlife, Bugle* and High Country News.

• Illustration for the eagle article was provided by **Don Jensen**, Chinle, Arizona. Originally from McCabe, Montana, Jensen is now assistant principal at Chinle High School. He has no formal art education, and he says, "I just do it for fun, and when I have time." He worked at Montana State University in Bozeman before moving to Arizona and has shown his work at Ducks Unlimited banquets and at Classic West, both in Bozeman.

* * * * *

• You're in Glacier National Park. It's high country, and you haven't seen another pair of hiking boots for hours. All of a sudden, your silence is pierced by a sharp, clear whistle. For just a second, you suspect another person is around. But the call is probably that of the "Alpine Whistler"—the hoary marmot. Thick and stocky, the hoary marmot is Montana's largest squirrel—an adult male can sometimes weigh more than 20 pounds. **Dr. Philip L. Wright's** "Nongame Sampler" is a fascinating portrait of Montana's marmots. He's studied them for a long time; in the 1950s, he and Clinton Conaway climbed into almost every high mountain range in northwestern Montana looking for hoary marmots. At that time, which mountain ranges harbored them and which did not was almost unknown. Dr. Wright joined the University of Montana faculty in 1939. He taught ornithology for 38 years and mammalogy for 46. He is Emeritus Professor of Zoology and Wildlife Biology. He is also well known to Montana sportsmen because of his involvement with the Boone and Crockett Club's records program. He served as chairman of the Records Committee for nine years. He has also participated in the Department of Fish, Wildlife & Parks' big game records program. Turn to his article on page 32.

* * * * *

• Turkey hunters guard spots about as carefully as huckleberry pickers. If you're going to make 'em tell, you have to make the reward appropriate. That's how **Tom Ellerhoff**, John, and the Beagle found their way to the famed Gobbler Knob, deep in the Missouri Breaks. The person who knew just where The Knob was also had a fondness for bluebirds. So the promise of 15 bluebird houses—delivered—resulted in the curtain going up on "A Turkey Opera in Four Acts." You can pretty well guess the staging for some of the scenes: a four-day trip with enough food for four weeks, miles of gravel roads turning to miles of dirt roads turning to dirt wheel tracks, scouting for fresh sign, spring winds whipping into progressively stronger and colder northern blasts. It's not nice to tell how the opera ends, but let's just say you'll meet the chorus, you'll learn about hyphens versus Js, and you'll discover that while the accidental absence of a shotgun doesn't fill the larder, it does provide the opportunity for close observation of the opera's lead singer. Ellerhoff is the administrative officer with the Environmental Sciences Division of the Department of Health and Environmental Sciences. Turn to page 35 for his "Perspectives" on turkeys—and opera.

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• *MO* thanks the following photographers for their contributions to this issue: **Dave Bennett**, Kalispell; **Mike Logan**, Helena; and **Conrad Rowe**, Great Falls.■

Saturday Afternoon Fever

continued from page 6

original purpose of field trialing—to improve the breeding and training of the retriever breeds—was being subverted by the intense competition and artificiality of the tests.

This dissatisfaction eventually led to a grassroots movement among retriever owners who felt that non-competitive field tests for hunting dogs were long overdue. As one person put it, "Hunters are the kind of people who want to be involved in the action, not watching from the sidelines. These retriever tests are a great way for us to improve our dogs and keep them sharp during the off season." The new tests are not intended to replace or in any way diminish AKC-licensed field trials, which have a distinguished history dating back 50 years and a loyal following. Instead, they are meant to provide an opportunity for hunters to have the abilities of their dogs graded against written standards, without competition, under near-natural hunting conditions.

After several years of planning, in 1985 the AKC launched its program of licensed hunting tests for retrievers in 21 states. The idea caught on rapidly, and by the end of 1988, some 20,000 retrievers throughout the United States had been tested. The program got under way in Montana in 1987, and has grown each year. Tests this summer will be hosted by hunting dog clubs in four cities: Billings, Missoula, Butte, and Bozeman (see sidebar).

Here, in a nutshell, is how the hunting retriever tests work. Dogs are entered in one of three categories, depending on their level of experience: Junior Hunter, Senior Hunter, or Master Hunter. In each category, the dogs are judged on the same five criteria or abilities, but the conditions of testing become progressively more demanding. These abilities are:

- Marking—how well the dog remembers where a bird has fallen.
- Perseverance—how much determination the dog shows in finding a downed bird, regardless of conditions.
- Style—how much alertness and enthusiasm the dog displays, and how much aggressiveness it shows in searching for, picking up, and delivering a downed bird.
- Nose—how well the dog detects the presence of the bird (or conversely, fails to detect it).
- Trainability—how well the dog demonstrates steadiness (retrieving only when commanded to do so), control (obeying its handler), response (obeying directional commands, primarily hand signals), and delivery (retrieving birds gently to hand).

During a test, dogs are graded by two judges on a scale of 0 to 10 for each of these five abilities. To receive a qualifying score, a dog must receive an average grade of at least five on each ability, with an overall average score of not less than seven. When qualifying scores have been earned at a set number of licensed tests (usually four or five), the dog is certified proficient at that level and is identified in the AKC permanent records by the appropriate title (Junior Hunter, Senior Hunter, or Master Hunter), and the owner receives an official AKC certificate.

Tests are conducted on both land and water in a variety of hunting situations. Junior dogs are tested only on marks, or birds that the dog has seen fall. Senior and Master dogs are tested not only on marks, but on land and water "blinds"—hidden birds, to which the dog must be directed by hand signals. In all tests, conditions simulate as nearly as possible those found in true hunting situations. This means the use of shotguns, decoys, camouflaged blinds, duck boats, and duck and goose calls is standard procedure.

By the end of the day, I was impressed with the new AKC hunting tests for retrievers. Comparing notes on training with other dog owners, swapping hunting stories, and simply enjoying the company of people with similar interests is an enjoyable way to spend a Saturday. Because there is no head-to-head competition (theoretically, every dog in a given test can qualify), the atmosphere is affable rather than adversarial. As one of the participants told me, "We aren't competing, so we can root for each other's dogs—we're all just trying to help each other and help our dogs do the best they can."

In fairness, traditional field trialers, too, are friendly, helpful people who care deeply about the retrieving breeds. But they are on a faster track, where winning requires a considerable investment in time, energy, and money. For people like me, whose only goal is to see their dogs achieve their full potential as field companions, the hunting tests for retrievers are a perfect alternative.

My current black Lab is 11 years old, and more interested in retriever naps than retriever tests. But when the time comes to start another pup, I intend to give this new hunter's game a try.■

More Info on AKC-Licensed Hunting Tests

Schedule for Montana, 1990

April 21 and 22—Montana Retriever Club, Billings; contact Ron Reitz, 256-5538.

June 9 and 10—Western Montana Retriever Club, Missoula; contact Betsy Potter, 251-5479.

July 21 and 22—Treasure State Retriever Club, Butte; contact Claudia Bolton, 723-4220.

August 4 and 5—Missouri Headwaters Gun Dog Club, Bozeman; contact Sam Robinson, 388-1346 or 587-5461.

In addition to the tests for retrievers listed above, these clubs conduct informal training sessions on weekends throughout much of the summer. The Missouri Headwaters Gun Dog Club also sponsors hunting tests for pointing breeds and spaniels. Additional information on AKC hunting tests nationwide can be obtained by contacting: Skip Rozin, editor, *The Hunter's Whistle*, American Kennel Club, 51 Madison Avenue; New York, NY 10010 (*The Hunter's Whistle* is a bimonthly publication reporting on AKC hunting tests for retrievers, pointing breeds, and spaniels; subscription price is $6 per year).

NONGAME SAMPLER

ALPINE WHISTLER

by Dr. Philip L. Wright

YOU'RE HIKING IN A HIGH AND REMOTE WILDERNESS when you suddenly hear a sharp, clear, humanlike whistle. You soon find there's no other human around—the whistler turns out to be a hoary marmot signaling other marmots in the area to be alert. The initial call may even be answered by another marmot calling from another big rock in a nearby alpine cirque.

The hoary marmot (*Marmota caligata nivaria*) is Montana's largest squirrel. Among Montana rodents, only the beaver and porcupine are larger. Thick, stocky, and impressive, the hoary marmot is primarily black and white; its upper back and shoulders are solid white. Contrasting black and white mark the face, and the feet are black. The tail and rump often have some tan mixed with the black. Adult males sometimes weigh more than 20 pounds in early fall just before entering hibernation, and adult females often weigh over 10 pounds. The hoary marmot inhabits only high elevations in the western mountains of Montana; it also inhabits central Idaho and the Cascades of Washington, northward into central Alaska.

The hoary marmot (left photo: Dave Bennett) inhabits only high elevations in the mountains of western Montana. The more common yellow-bellied marmot (below photo: Mike Logan) is smaller and has more orange or reddish tones.

Hoary marmots vary in color according to their geographic location—those in the Washington Cascades are much blacker than those in Montana. The palest form is the Montana subspecies; its subspecies name, *nivaria*, means snowlike. In northwestern Canada and southeastern Alaska, some hoary marmots are almost solid black, but, strangely, those in central Alaska look much like the Montana marmots. To my knowledge, no blackish (melanistic) hoary marmots are found in Montana.

MONTANA'S OTHER MARMOT, the yellow-bellied (*Marmota flaviventris*), is smaller, has more orange or reddish tones, does not have black feet—and it lives over much of the state in rocky sites at lower elevations. Occasionally, yellow-bellies live at high elevations, such as on the Beartooth Plateau and in other central Montana mountain ranges, but the two marmot species generally are not found in the same mountain range.

THE HOARY MARMOT is a true hibernator and is active only from late spring until September. It does not store food like a chipmunk, but puts on large amounts of fat in late summer and early fall. Mating occurs after the marmots emerge from their dens in May, and young are born after a gestation period of about a month; after another month in the den as nestlings, the young appear above ground in late June or July. Litters contain from two to five young, and the young remain with the mother throughout the summer, hibernating with her in the fall. Reproduction is notoriously slow, and females are 3 years old before they have their first litter. They may not have a second until two, three, or four years later. The mothers are not able to store as much fat as the non-breeding females and thus are in no condition to breed the next spring. Because of the harsh conditions in alpine country even during summer, juveniles are only about half grown when they enter hibernation.

The hibernating den is extremely important because all individuals in the colony hibernate together in the same den. Although studies in Alaska by marmot researcher Warren Holmes indicated that the adult male doesn't participate in rearing young, his influence in maintaining the colony and alerting other colony members to the presence of predators must be significant in maintaining the colony's stability. Marmots have all sorts of reactions—greeting, sniffing, play behavior, mounting, chasing—all of which seem to have meaning in marmot life.

In Montana, hoary marmots are most abundant in Glacier National Park. They become quite tame, and many summer hikers see them. The usual encounter between wilderness hiker and hoary marmot is brief; the hiker might see the animal atop a big rock at some distance or perhaps hear its piercing whistle before it dives for cover in the rock slide. They are much less common elsewhere in western Montana and are actually rare in some areas.

In northwestern Montana and Idaho, hoary marmots are most often found in north-facing cirques at high elevations where snow remains most of the summer. Big rocks provide den sites and escape cover. Alpine meadows supply a luxuriant growth of herbaceous plants for food. Water must flow throughout the growing season, and a lake often sits directly below the alpine meadow.

The pika (*Ochotona princeps*) is always abundant in hoary marmot habitat. But there are hundreds, if not thousands, of pikas for every hoary marmot. The pika doesn't require such large rocks or extensive alpine meadows. In the same habitat, one will often also find the golden-mantled ground squirrel (*Spermophilus lateralis*).

Researchers have tried to study hoary marmot behavior in Glacier, but they have not been very successful because the marmots are so difficult to capture and mark. Significant behavior studies require that researchers be able to quickly identify individuals in the field. Some aspects of marmot behavior are pretty well understood from studies of the yellow-bellied marmot in Colorado and the Olympic marmot in Washington.

HOLMES' STUDIES IN ALASKA encompassed three full field seasons in which he marked individual hoary marmots with paint of various colors. He placed a live trap at the entrance to the hibernating den and captured all individuals in several colonies as they emerged from hibernation. He found the typical Alaskan colony had an adult male, an adult female, and immature individuals (juveniles, yearlings, or 2-year-olds). From tooth sections like those done on big game animals for aging, I learned that they may live to be 10 years or older, surprisingly long for an animal of this size.

Distribution of hoary marmot in Montana

During the '50s, Clinton Conaway and I, working from the University of Montana's Biological Station, climbed into almost every high mountain range in northwestern Montana looking for hoary marmots. Which ranges harbored them and which did not was almost unknown at that time. The areas where we found marmots are shown on the accompanying map. They're difficult to spot because they are wary or inactive during much of the day and spend a great deal of time underground. In late summer, dispersing individuals can be found in temporary sites away from colonies, but attempts to find them again are almost always unsuccessful.

In the '60s, Robert Hoffmann and Richard Taber of the UM faculty conducted a comprehensive study of the birds and mammals in Montana's alpine ranges. This study, financed by the National Science Foundation, contributed to knowledge about marmot distribution. Only in the Long John Mountains west of Deer Lodge and east of Philipsburg, the Anaconda Pintlar Range, and the Bitterroot Range in Ravalli and Beaverhead counties can one find hoary marmots on the tops of the mountains and yellow-bellies lower down in the same ranges. Distribution of the hoary marmot and the original range of the Rocky Mountain goat (before goat transplants into central Montana) were almost identical. Only in the Pioneer Range northwest of Dillon did mountain goats occur naturally where hoary marmots were absent.

More recently, aided by tips from interested alpine climbers, I have found several additional sites inhabited by hoary marmots, but their southernmost range lies in the southern tip of the Beaverhead Mountains, southwest of Jackson, Montana.

OTHER SPECIES OF MARMOTS live in the mountainous regions of Europe and northern Asia. The original stock from which our hoary marmot evolved reached North America during the Pleistocene Epoch—the Ice Age—via the land bridge which linked Alaska and Siberia at various times. The glacial period altered the ranges of the hoary marmots, isolating one group in the Olympic Mountains of Washington and another group on Vancouver Island. Both evolved into distinct species. The Olympic marmot is brownish and abundant in Olympic National Park. The Vancouver marmot, dark chocolate in color and quite secretive, is now regarded by Canada as an endangered species. During the last interglacial period, hoary marmots lived in western Montana; fossil evidence suggests these animals dispersed northward into Alaska after the retreat of the glaciers some 10,000 years ago. Most of the British Columbia and Alberta sections of the Rocky Mountains were uninhabitable by mammals during the peak of glaciation. Mammals from those areas moved in—either from the north where some areas were unglaciated or from the south after the ice melted. Hoary marmots could very well have lived farther south in the Rockies than they now do; they could have died out during an extended period of much warmer weather which occurred during the past 10,000 years.

CHIEF ENEMIES OF THE HOARY MARMOT are golden eagles which soar over alpine country. An eagle can kill even an adult marmot. Montana hoary marmots are remarkably similar in color to the rocks in which they live, and a motionless marmot is probably difficult for even an eagle to spot. Bears, both grizzly and black, are potential enemies, but the typical marmot den site has larger rocks surrounding its entrance than bears are capable of moving. Coyotes and wolves are potential enemies, but probably they are not very often successful predators. Badgers prey on yellow-bellied marmots at lower elevations, but badgers are generally not common in hoary marmot habitats. The wolverine occasionally preys on hoary marmots, as observed by Ron Marcoux, now deputy director for the Department of Fish, Wildlife & Parks. In a very rare sighting several years ago in the Rattlesnake Wilderness Area, he saw an adult female wolverine, accompanied by her cubs, carrying an adult hoary marmot the female had just killed. Man is the only other enemy.

The next time you visit Montana's high mountain country, listen for the marmot's distinctive whistle. If you're lucky, you'll catch a glimpse of this beautiful animal so characteristic of Montana's wild areas.■

A Turkey Opera in Four Acts

by Tom Ellerhoff
illustrated by Chuck Herr

Act I—Scene I

The Deal

The voices at both ends of the phone line dropped to whispers. Negotiations were in progress. At last it was settled. The trade, 15 bluebird houses for the location of the most sacred of places—the whereabouts of the famous "Gobbler Knob," deep in the Missouri Breaks.

Act I—Scene II

The Enticement

March arrived like a flock of lambs. Warm rains and gentle breezes ushered in 60-degree weather. April followed with no appreciable change. The effect was euphoric. Spring fever swept the state like an epidemic.

The phone call shattered my dream-like gaze out the window.

"You'll never guess what I just learned," John said excitedly.

"You're right. Considering the weather today, I'd never guess in a million years."

His voice lowered, "I know where Gobbler Knob is."

"You're kidding," I replied skeptically. "This weather is driving me crazy and you call saying you know where The Knob is. Give me a break!"

"It's really true. I know where it is," he said.

I glanced at the turkey feather pinned atop my bulletin board. Dangling from a string beneath the pin is a tag. Whenever I feel the urge to chase wild turkeys, I reread the tag. It reminds me that two years ago I paid almost $360 to sleep for four nights under the stars and eat almost-cooked food while stalking gobblers throughout eastern Montana.

As I let the reminder sink in, I replied, "The Knob, huh? What'd the information about where it is cost you?"

"Fifteen bluebird houses, delivered," John replied.

"Ooh, 15, pretty steep. It must be accurate information." I paused for a few seconds before adding, "Okay, count me in."

Act II—Scene I

Packing Up

We were ready and the truck was packed. Only one question remained. "Do you think we can fit the beagle in?" I asked John.

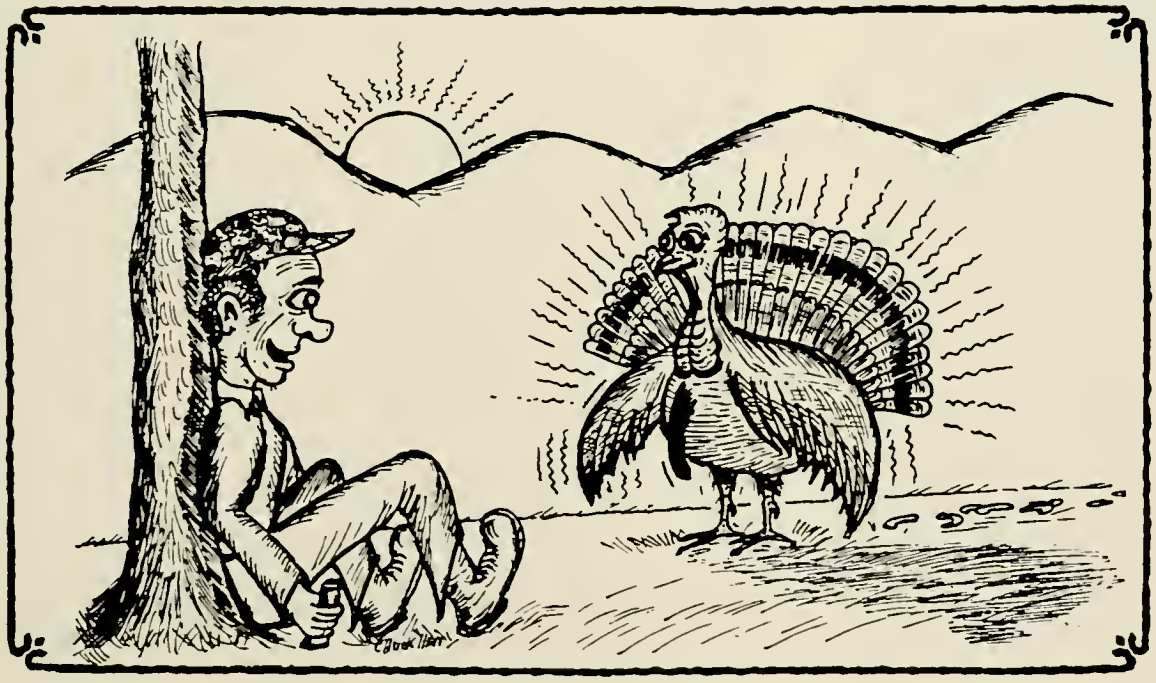
Gale watched as John hoisted the dog into a nest in the middle of the gear. "So," she mused aloud, "how long did you say you'd be gone?"

"Four days," we replied.

"Gee, isn't that an awful lot of stuff for four days? It looks like enough for four weeks."

"Well, you know the Breaks," John reminded her. "If we get rained in, we could be there for a while."

"And as far as food goes, it's always



better to have too much," I added.

She smiled.

The beagle—now secure in the fact she wouldn't be left behind—circled a few times, then curled into her nest.

Act II—Scene II

On the Road

As John recounted former turkey tales, the beagle slept and the miles slipped by. Harlowton, Judith Gap, Lewistown, Grassrange, and Teigen were blurred by recollections of past hunts and building optimism. At Winnett we stopped at a gas station.

"You boys look like you're goin' huntin'," the older fellow behind the counter said.

"We're going to chase turkeys in the Breaks. Have you heard any reports? Has anybody seen any?" I asked.

The fellow took a closer look at my camouflage outfit and, as he gave me the change, replied, "There's no turkeys around here, but up north—up in the Breaks—folks say there's quite a few of 'em this year. If that's what you boys are after, good luck."

"Thanks," I replied, and added to myself, "We'll probably need it."

From Jordan, we swung northwest toward the Breaks. Miles of gravel roads turned to miles of dirt roads, then to dirt wheel tracks, and just as we were beginning to doubt our ability to read maps, there it was—The Knob. At least it looked like it. We quickly found a place to camp and climbed the landmark, only to discover quite a few knobs with remarkably similar characteristics scattered about the countryside. As we began to wonder about its authenticity, a loud, rapid-fire "gobble, gobble, gobble" broke the stillness. That was the acid test: We had found the legendary Gobbler Knob.

Act III—Scene I

The Hunt

Three and a half days passed with nary a hint of another gobble. The gentle southern spring winds did an about-face the first morning, with the northern breezes becoming progressively stronger and colder.

One could almost endure hearing nothing, and battling the wind was a matter of putting on extra clothes. But there was no fresh "sign." Much of hunting revolves around fresh sign. To those not schooled in turkey hunting subtlety, this amounts to scurrying around the country looking for turkey droppings or, in biological terms, "scat."

There's actually some sense to this. The droppings from a male turkey always appear in the shape of the letter J. Female turkey scat looks like a hyphen (-). Thus, the hunter can tell which sex has been around. Some of the more enthusiastic hunters even crumble the scat between their fingers, giving them some idea how fresh it is. Less ardent sorts use a stick or the toe of a boot.

The morning trek had been a nice walk, but the lone sound was the wind and only a few old, dried J's were discovered. The two hunters and the beagle—who was having a thoroughly splendid time—headed back to camp for lunch.

Act III—Scene II

When I'm Calling You

"Look, we must be doing something wrong. We've tried everything. We've called, sat in the same place for hours, walked, hunted at all hours of the day. We must be doing something wrong." John looked up from his bologna and cheese sandwich and added, "It's been cold, we haven't heard a thing since the first day, and we haven't seen any fresh sign. I think that's called bad luck."

I said, "Maybe I'm not doing this calling thing right. I think after lunch I'll take my turkey call and go practice somewhere."

Just before lunch the sky began to clear. The sun broke through and, when not obscured by passing clouds, it radiated the warmth that makes the Breaks one of the truly wonderful places to be in the spring.

No fool, the beagle had successfully begged a stomach full of treats and snuggled into a spot that would gather optimum rays. John finished lunch, scanned the countryside, yawned, and announced it was time for a short nap. Undaunted, I said I was going to practice my calling a bit. I grabbed my cedar turkey box call and headed for a coulee a quarter mile from camp.

Act III—Scene III

Basso Profundo (Deep Bass)

The sound from a cedar box call isn't exactly like scraping a fingernail across a chalkboard, but it's not too far from it either. The object is to sound like a seductive female turkey. In the hands of a seasoned hunter, the call can turn an otherwise crafty, wily gobbler (also known as a "tom") into a senseless, bold turkey on the prod. Possibly our founding fathers knew of this quirk when they rejected Benjamin Franklin's proposal to select the wild turkey as the nation's symbol and instead chose the bald eagle.

The spot I picked for rehearsal was on a small hill flanked by two gullies that joined and entered a large coulee a hundred yards to the north. Facing me was a larger hill, which peaked about 75 yards from where I sat. It then sloped down to the coulee, forming one of the many eroded fingers radiating from the depression.

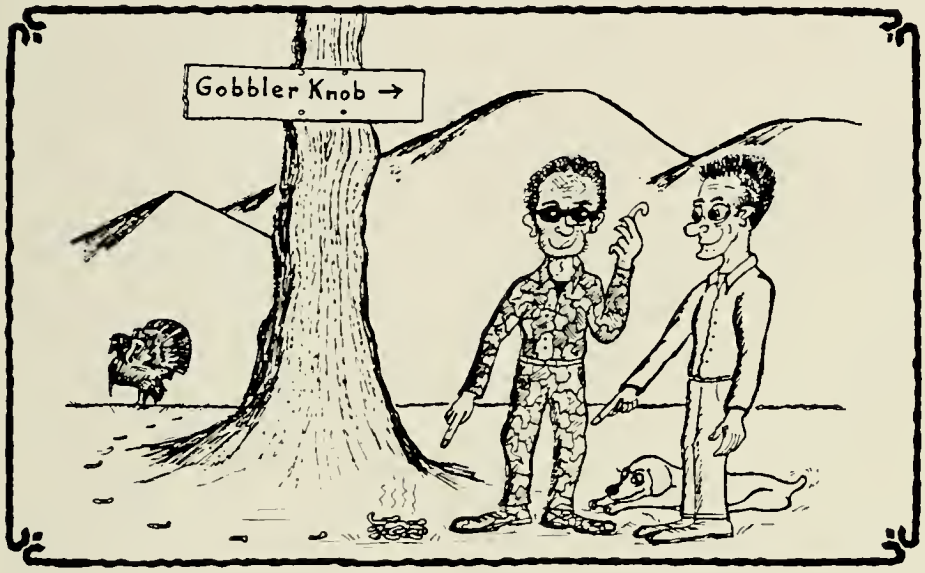
"Possibly I've been too enthusiastic with turkey yelps," I conjectured. "Maybe I should do a few yelps, wait five or 10 minutes, then try again."

To provide some discipline, I used my watch to time the intervals between calls. I had just made myself comfortable after a series of yelps at the 20-minute mark when I thought I heard a faint "gobble, gobble, gobble" from somewhere deep in the coulee. I fought temptation for about four minutes, then answered. This was followed by a hushed silence of about five minutes, then there it was again. There was no question, it was a very interested tom. We bantered back and forth for about 15 minutes, then the gobbling was so close I decided to put my call down. I was so caught up in the exchange that I forgot I had left my shotgun back at camp.

As I was trying to figure out if I should stay put or go for my gun, the biggest, puffed-up bird I'd ever seen burst over the hill in front of me. My mind flashed to opera. The basso profundo had taken center stage and was booming out an aria.

As the star strutted down the hill, gobbling loudly while craning his neck left and right to catch the merest hint of movement from the phantom female, a hen and young male turkey (a jake) lurched out of the brush. I flashed back to the opera: Enter the chorus, stage right.

The accidental absence of my shotgun didn't do much for our larder, but it enabled me to turn full attention to the birds and their behavior.



The three met at the foot of the hill. Tom was still looking for the mysterious female, but soon joined the others grazing off to my left. I remained motionless. As they grazed, one of the three always had its head up, peering around for the slightest movement or object that might be out of place. When something suspicious happened, the guard would make an evenly cadenced popping sound. All three would jerk to attention, then they would relax when the incident proved non-threatening.

After 10 minutes of watching them forage, I was getting a little stiff. My camo clothing seemed to be working, since I was just sitting at the foot of a ponderosa pine. I'd made no effort to construct a blind because, after all, I was just there to practice.

My leg started to cramp so I tried to inch it into a different position. The gobbler caught the movement, ballooned as if inflated with compressed air, and charged.

I was shocked, I still can't recall the sound it made—I think it was a hissing noise. Although I didn't move, my mind was racing, "Here it comes. It's huge. Look at that snood (the red wormlike skin that hangs from its nose)—it's as big as a night crawler. The plumage is incredible. And that beard, gad, it's really long. This thing must weigh 20...no it's getting closer... maybe 30 pounds. What if it attacks? I'll have to grab it...grab it by the neck. That way it will have a tough time pecking me, but the spurs on its feet...look at those feet!"

Suddenly, it stopped. It was eight to 10 yards away. And it *was* big. It looked at me for a few seconds. I tried my best to appear Knoblike. Slowly, the feathers began to relax. First the wings, then the body armor. Even relaxed, it still looked big. Although not entirely convinced I was part of the landscape, it stepped back a few steps, turned, took six or eight steps more, looked back again, and in that fashion rejoined the jake and hen.

Once reunited, the troop popped, softly yelped, and gobbled as it noisily grazed west into a brushy area—stage left.

Act IV—Scene I
The Proof

John was enjoying a relaxing post-nap stretch when I burst into camp.

"John I saw it. It was the biggest thing I've ever seen. It was the biggest..."

"What are you talking about and why are you trying to whisper? You're not succeeding you know," he said.

"I just called in a huge gobbler. It's right over the hill with a jake and hen. Grab your gun. I think we can still get a shot."

As we sprinted back to the site, the beagle, not really too interested in giving up her warm nest, looked up, sniffed, noted the excitement didn't involve food, and tucked her head back into her warm midsection.

It didn't take us long to figure out the turkeys were long gone. As I gave a breathless account of the events, John began to look a little skeptical. After all, we'd gone almost four days without hearing a gobble or seeing fresh sign. After my animated description, I led John to where the birds had been grazing.

He stopped as if he had dropped something. He bent down for a closer look, then kneeled, and appeared to scoop it up. Cradling the object in the palm of his hand, he studied it as he walked toward me. "You were right," he said as he extended his hand. There—resting in the center—was a perfectly formed fresh J.

Act IV—Scene II
Finale: Several Months Later

A curious visitor to my office picked up a shiny, polyurethaned object. "You have some of the strangest stuff. What's this?" my visitor queried.

"That's a J."

"What do you mean 'a J?' "

"Actually, it's a trophy."

"What kind of trophy?"

"It belonged to a bird I called in last spring."

"Wait a minute! Is this a...?"

"Yup, it's a turkey dropping. It belonged to a giant gobbler. I dried it and coated it with five or six coats of polyurethane."

"Iek! That's disgusting, and you're weird!"

"No, it's really an interesting story. Do you have a few minutes?"

"Can you do it in under five?"

"I'll try...."

Curtain

Celebrate National Wildlife Week, April 22-28, and
the 20th anniversary of Earth Day on April 22nd.